

WHAT IS CLAIMED IS:

- 5 1. A method of determining an end of a transmitted frame at a receiver on a frame-based communications network comprising:
providing an end of frame format for the transmitted frame having an end of frame plurality of symbols;
filtering a received transmitted frame using filter coefficients matched to the end of frame plurality of symbols to
10 provide a correlation sequence low-pass filtered signal;
computing a squared magnitude of the correlation sequence;
low-pass filtering the squared magnitude of the correlation sequence to provide a low-pass filtered correlation signal;
delaying the low-pass filtered correlation signal to provide
15 a delayed low-pass filtered correlation signal;
multiplying the delayed low-pass filtered correlation signal by a fixed predetermined threshold to provide a multiplied correlation signal; and
comparing the multiplied correlation signal with the low-
20 pass filtered correlation signal to provide a match/no match comparison indicative of the possible end of a transmitted frame.
2. The method of Claim 1, wherein the filtering is linear matched filtering.
- 25 3. The method of Claim 1, wherein the filter coefficients are a time-reversed, complex-conjugated end of frame symbol sequence.
4. The method of Claim 3, wherein the time-reversed complex-
30 conjugated end of frame symbol sequence is a constant-amplitude zero-autocorrelation sequence.
5. The method of Claim 3, wherein the time-reversed complex-
35 drawn from a Quadrature Phase Shift Keying or 4-Quadrature

Amplitude Modulation constellation.

5 6. The method of Claim 1, wherein the multiplying includes first computing $10 \cdot \log_{10}(\cdot)$, or an approximation of $10 \cdot \log_{10}(\cdot)$, of each operand to provide a plurality of log operands and then adding each of the plurality of log operands.

10 7. The method of Claim 1, wherein the comparing includes performing a comparison a predetermined number of times before an end of a transmitted frame is determined.

15 8. A method of determining an end of a transmitted frame at a receiver on a frame-based communications network comprising:

providing an end of frame format for the transmitted frame having an end of frame plurality of symbols;

20 linear matched filtering a received transmitted frame using filter coefficients matched to the end of frame plurality of symbols to provide a correlation sequence, the filter coefficients being a time-reversed complex-conjugated end of frame symbol sequence including complex symbols drawn from a Quadrature Phase Shift Keying or 4-Quadrature Amplitude Modulation constellation;

25 computing a squared magnitude of the correlation sequence; low-pass filtering the squared magnitude of the correlation sequence to provide a low-pass filtered correlation signal;

delaying the low-pass filtered correlation signal to provide a delayed low-pass filtered correlation signal;

30 multiplying the delayed low-pass filtered correlation signal by a fixed predetermined threshold by first computing $10 \cdot \log_{10}(\cdot)$, or an approximation of $10 \cdot \log_{10}(\cdot)$, of each low-pass filtered correlation signal operand to provide a plurality of low-pass filtered correlation signal log operands and then adding
35 each of the plurality of low-pass filtered correlation signal log

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operands to provide a multiplied correlation signal; and

5 comparing the multiplied correlation signal with the low-
pass filtered correlation signal to provide a match/no match
comparison indicative of the possible end of a transmitted frame
and performing a comparison a predetermined number of times
before an end of a transmitted frame is determined.

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